OPERATOR'S MANUAL

KUBOTA TRACTOR

MODELS L2650 • L2950
L3450 • L3650



F-6454

READ AND SAVE THIS MANUAL

Kubota

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SAFE OPERATION

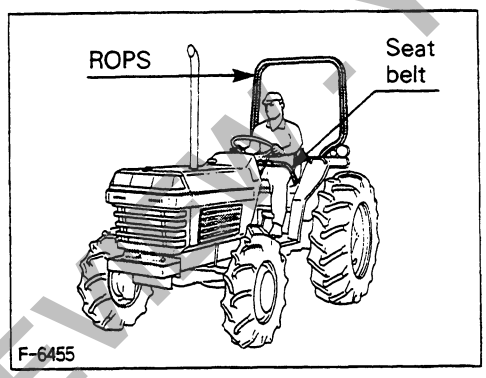
Careful operation is your best insurance against an accident. Read this section carefully before operating the tractor. All operators, no matter how much experience they may have had, should read this and other related manuals before operating tractor or any implement attached to it. It is the owner's legal obligation to instruct all operators in safe operation.

1. BEFORE OPERATING THE TRACTOR

(1) Know your equipment and its limitations. Read this entire manual before attempting to start and operate the tractor.

(2) Pay special attention to the warning and caution labels on the tractor itself.

(3) Kubota recommends the use of a Roll Over Protective Structures (ROPS) and seat belt in almost all applications. This combination will reduce the risk of serious injury or death, should the tractor be upset.
If the ROPS is loosened or removed for any reason, make sure that all parts are reinstalled correctly before operating the tractor.
Never modify or repair a ROPS because welding, bending, drilling, grinding, or cutting any portion may weaken the structure.
A damaged ROPS structure must be replaced, not repaired or revised. If any structural member of the ROPS is damaged, replace the entire structure at your local Kubota dealer.



(4) Always use the seat belt if the tractor has a ROPS. Do not use it if there is no ROPS. Check the seat belt daily and replace if frayed or damaged.

(5) Do not operate tractor or any implement attached to it while under the influence of alcohol, medication, or other substances or while fatigued.

(6) Carefully check the vicinity before operating tractor or any implement attached to it. Check for overhead clearance which may interfere with a ROPS. Do not allow any bystanders around or near tractor during operation.

(7) Before allowing other people to use your tractor, explain how to operate and have them read this manual before operation.

(8) Never wear loose, torn, or bulky clothing around tractor.It may catch on moving parts or controls, leading to the risk of accident. Use additional safety items...hard hat, safety boots or shoes, eye and hearing protection, gloves, etc. ...as appropriate or required.

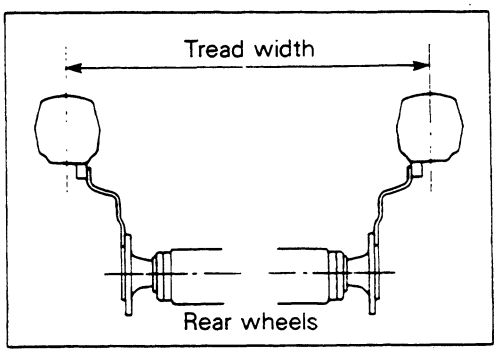
(9) Do not allow passengers or non-qualified operators on the tractor at any time. The operator must remain in the tractor seat throughout operation.

(10) Check brakes, clutch, and other mechanical parts for faulty adjustment and wear. Replace worn or damaged parts promptly. Check the tightness of all nuts and bolts regularly. (For further details, see MAINTENANCE AND ADJUSTMENTS.)

(11) Keep your tractor clean. Dirt, grease, and trash accumulations contribute to fires and lead to personal injury.

(12) Use only implements meeting the specifications listed under IMPLEMENT LIMITATIONS in this manual. Use proper weights to front or rear of tractor to reduce the risk of upsets. Follow the safe operating procedures specified in the manuals included with the equipment.

(13) The narrower the tread, the greater the risk of a tractor upset. For maximum stability, adjust the wheels to the largest practical tread width.(See page 29, 30).



2. OPERATING THE TRACTOR

(1) Never start engine or operate levers from anywhere other than the seat.

(2) Before, starting the engine, make sure that all levers (including auxiliary control levers) are in their neutral positions, that the parking brake is engaged, and that both the clutch and the Power Take-Off (PTO) are disengaged.
Fasten the seat belt if the tractor has a ROPS.

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2. SPECIFICATIONS

2.1 SPECIFICATION TABLE

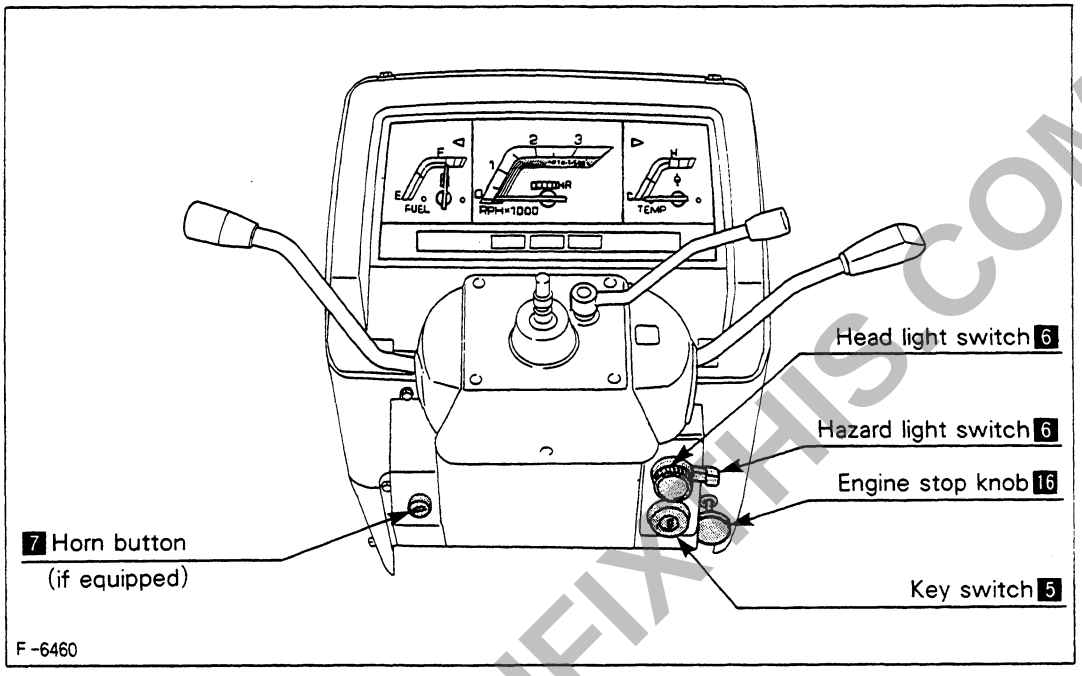
Model				L2650		L2950		L3450		L3650	
				2WD	4WD	2WD	4WD	2WD	4WD	2WD	4WD
PTO power			kW (HP)	17.5 (23.5)*		19.4 (26.0)*		22.4 (30.0)*		24.6 (33.0)*	
Engine	Maker			KUBOTA							
	Model			D1402-DI-AE		D1462-DI-AE		V1902-DI-AE		V1902-DI-X-AE	
	Type			Direct Injection, Vertical, Water-Cooled 4 cycle diesel							
	Number of cylinders			3				4			
	Bore and stroke		mm (in.)	85 × 82 (3.3 × 3.2)		87 × 82 (3.4 × 3.2)		85 × 82 (3.3 × 3.2)			
	Total displacement		cm^3 (cu. in.)	1395 (85.1)		1462 (89.2)		1861 (113.6)			
	Engine gross power		kW (HP)	21.6 (29.0)*		23.7 (31.7)*		27.3 (36.7)*		30.2 (40.5)*	
	Rated revolution		r/s (rpm)	43.3 (2600)				41.7 (2500)		43.3 (2600)	
	Maximum torque		kg·m (ft·lb)	9.1 (65.8)		9.7 (70.2)		11.8 (85.4)		12.7 (91.9)	
	Battery			490-Cold cranking Amps at−18℃				447-Cold cranking Amps at−18℃			
	Fuel			Diesel fuel No.2−D							
Capacities	Fuel tank		ℓ (U.S. gals.)	29 (7.7)							
	Engine crankcase (with filter)		ℓ (U.S. qts.)	5.7 (6.0)				8.5 (8.9)			
	Engine coolant		ℓ (U.S. qts.)	4.6 (4.9)				5.6 (5.9)			
	Transmission case		ℓ (U.S. gals.)	28.5 (7.5) 【except WET type】, 29.5 (7.8) 【WET type only】							
Dimensions	Overall length (without 3p)		mm (in.)	2770 (109.1)		2795 (110.0)		2900 (114.2)		2950 (116.1)	
	Overall width (minimum tread)		mm (in.)	1305 (51.4)		1340 (52.7)		1370 (53.9)		1480 (58.3)	
	Overall height (with ROPS)		mm (in.)	2110 (83.1)		2125 (83.7)		2105 (82.9)		2155 (84.8)	
	Overall height (Top of steering wheel)		mm (in.)	1475 (58.1)				1470 (57.9)		1510 (59.4)	
	Wheel base		mm (in.)	1640 (64.6)				1735 (68.3)			
	Minimum ground clearance		mm (in.)	345 (13.6)						360 (14.2)	
	Treads	Front	mm (in.)	960 (37.8) 1060 (41.7) 1160 (45.7) 1260 (49.6)	1120 (44.1)	960 (37.8) 1060 (41.7) 1160 (45.7) 1260 (49.6)	1120 (44.1)	1150 (45.3) 1250 (49.2) 1350 (53.1) 1450 (57.1)	1120 (44.1)	1150 (45.3) 1250 (49.2) 1350 (53.1) 1450 (57.1)	1170 (46.1)
		Rear	mm (in.)	1030 (40.6), 1125 (44.3), 1220 (48.0), 1305 (51.4), 1400 (55.1)				1050 (41.3), 1150 (45.3), 1240 (48.8), 1335 (52.6), 1420 (55.9), 1515 (59.6)		1155 (45.5), 1225 (48.2), 1325 (52.2), 1350 (53.1), 1450 (57.1)	
Weight (with ROPS)			kg (lbs.)	1080 (2380)	1180 (2600)	1110 (2445)	1210 (2670)	1185 (2610)	1290 (2845)	1225 (2700)	1320 (2910)
Clutch				Dry type Dual stage (live PTO), Dry type Single stage or WET type single stage 8 plates							
Traveling system	Standard tires	Front		4.00-15	7-16	5.00-15	7-16	5.00-15	7-16	6.00-16	8-16
		Rear		11.2-24		12.4-24				13.6-26	
	Steering			Integral power steering 【2WD】, Hydrostatic power steering 【4WD】							
	Transmission			Mechanical shuttle, 8 forward and 8 reverse speeds							
	Brake			wet disk type							
	Minimum turning radius (with brake)		m (feet)	2.3 (7.5)				2.4 (7.9)			
Hydraulic unit	Hydraulic control system			position control							
	Pump capacity		ℓ/min	DC	25.4			28.4		29.5	
				WET	29.5			32.8		34.0	
	Three point hitch			category 1							
	Max. lift force	At lift points	kg (lbs.)	1200 (2645)							
		24in. behind lift points	kg (lbs.)	900 (1985)				930 (2050)			
	System pressure		kg/cm^2 (psi.)	175 (2490)							
PTO	Rear PTO			SAE 1-3/8 6-splines (with overrunning clutch on single clutch tractor)							
	Revolution	with single clutch		2 speeds 9r/s (540rpm)/engine 40.5r/s (2430rpm), 16.7r/s (1000rpm)/engine 40.6r/s (2438rpm)						1 speed 9r/s (540rpm)/engine 40.5r/s (2430rpm)	
		with dual clutch		2 speeds 9r/s (540rpm)/engine 38.3r/s (2298rpm), 16.7r/s (1000rpm)/engine 40.6r/s (2438rpm)						1 speed 9r/s (540rpm)/engine 38.3r/s (2298rpm)	
	MID-PTO (if equipped)			USA No.5 (KUBOTA 10 tooth) Involute spline						—	
	Revolution	with single clutch		2 speeds 18r/s (1080rpm)/engine 40.5r/s (2430rpm), 33.3r/s (2000rpm)/engine 40.6r/s (2438rpm)						—	
		with dual clutch		2 speeds 18r/s (1080rpm)/engine 38.3r/s (2298rpm), 33.3r/s (2000rpm)/engine 40.6r/s (2438rpm)						—	

Note: *Manufacturer's estimate

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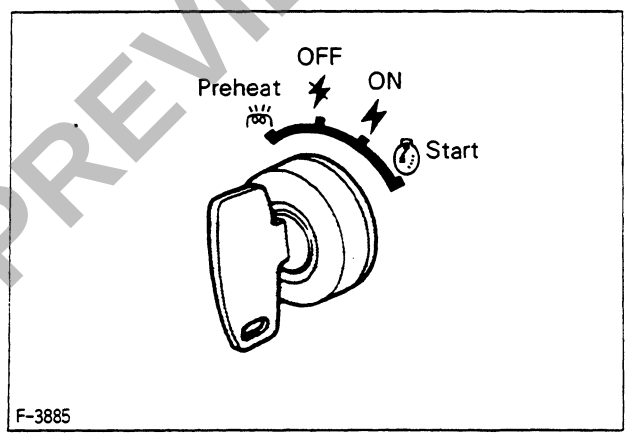
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5.2 CONTROLS



5 Key Switch

- OFF····· The position where the key can be inserted into or removed from the key switch. The engine stops the moment the key is turned to this position.
- ON····· The engine keeps running.
- Preheat····· The combustion chamber is heated.
- Start····· Place shuttle shift lever and PTO gear shift lever in neutral.
  Depress the clutch pedal fully and turn the key switch to this position to start the engine.

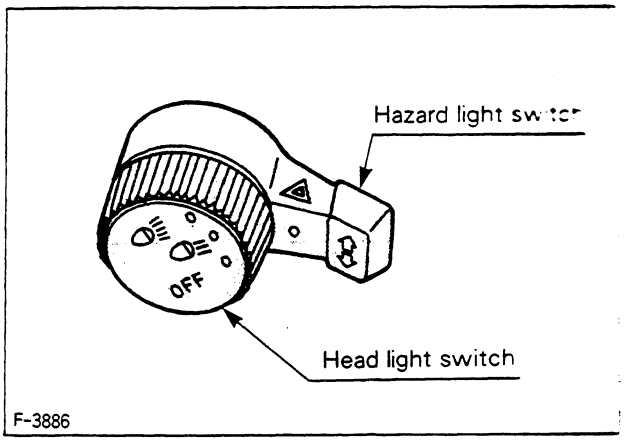


IMPORTANT:

- Because of the safety device, the engine may not be started except when both shuttle shift lever and PTO gear shift lever are in neutral.

6 Head Light Switch, Hazard Light Switch (if equipped)

OFF···· Head lights OFF.
≡D ····· Head lights dimmed, low beam.
≡D ····· Head lights ON, high beam.
When hazard light switch is turned to either direction the hazard lights blink.
(Hazard light is standard for USA)



7 Horn Button (if equipped)

The horn will sound when the key switch is in the ON position.

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8.1 WHEEL ADJUSTMENT

■ Front Wheels

◆ 2WD (Two Wheel Drive)

Front tread width can be adjusted as shown with the standard equipped tires.

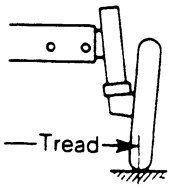
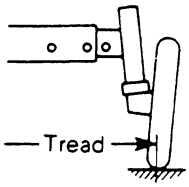
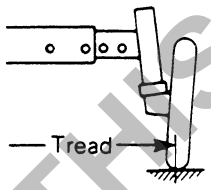
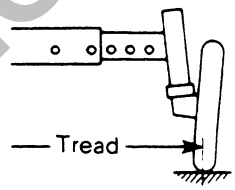
CAUTION

To avoid personal injury:

- **When working on slopes or when working with trailer, set the wheel tread as wide as practical for the job for maximum stability.**

To change the tread:

(1) Lift the front of the tractor with a jack.
(2) Remove the front axle mounting bolts and the tie-rod mounting bolts.
(3) Move the front axles (right and left) to the desired position, and tighten them with bolts.
(4) Adjust the toe-in: [2 to 8 mm (0.1 to 0.3 in.)] (See page 54)

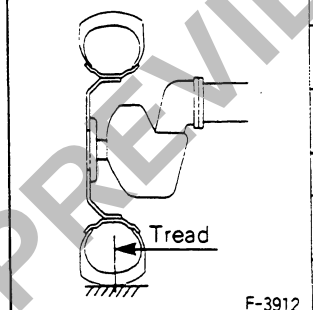
Models				
L2650 L2950 4.00–15·5.00–15 Farm Farm	960 mm (37.8 in.)	1060 mm (41.7 in.)	1160 mm (45.7 in.)	1260 mm (49.6 in.)
L2650·L2950 23×8.50–12 Turf	1080 mm (42.5 in.)	1180 mm (46.5 in.)	1280 mm (50.4 in.)	1380 mm (54.3 in.)
L3450 5.00–15 Farm	1150 mm (45.3 in.)	1250 mm (49.2 in.)	1350 mm (53.1 in.)	1450 mm (57.1 in.)
L3450·L3650 25×8.50–14 Turf	1270 mm (50.0 in.)	1370 mm (53.9 in.)	1470 mm (57.9 in.)	1570 mm (61.8 in.)
L3650 6.00–16 Farm	1150 mm (45.3 in.)	1250 mm (49.2 in.)	1350 mm (53.1 in.)	1450 mm (57.1 in.)

IMPORTANT:

- The front tread width for the front loader application on 2WD models should not be greater than 1060mm (41.7 in.) for L2650·L2950, 1150mm (45.3 in.) for L3450·L3650.

◆ 4WD (Four Wheel Drive)

Front axle is not adjustable.

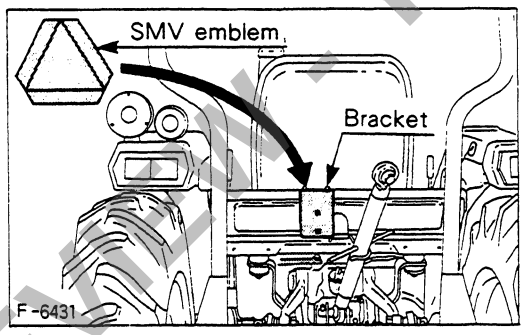


Models	**L2650**		**L2950**	
Tires	7–16 Farm	25 × 8.50–14 Turf	7–16 Farm	25 × 8.50–14 Turf
Tread	1120 mm (44.1 in.)	1185 mm (46.7 in.)	1120 mm (44.1 in.)	1185 mm (46.7 in.)
Models	**L3450**		**L3650**	
Tires	7–16 Farm	212/80–D15, 27X8.50–15 Turf	8–16 Farm	212/80–D15, 27X8.50–15 Turf
Tread	1120 mm (44.1 in.)	1215 mm (47.8 in.)	1170 mm (46.1 in.)	1215 mm (47.8 in.)

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- **Do not allow any person other than the driver to ride on the tractor.**
- **Do not drive the tractor close to the edges of ditches or banks which may collapse under the weight of the tractor. Especially when the ground is loose or wet.**
- **Always back up when going up a steep slope. Driving forward could cause the tractor to tip over backward. Stay off hills and slopes too steep for safe operation.**
- **If descending a slope, never disengage the clutch or shift levers to neutral. Doing so could cause the tractor to speed up out of control.**
- **Roll-Over Protective Structure (ROPS) with a seat belt is recommended by Kubota in almost all applications. Refer to the Safety Section.**
- **Do not apply the differential lock while traveling at road speeds. Doing so could cause the tractor to swerve out of control.**
- **When traveling on road with 3-point hitch mounted implement attached, be sure to have sufficient front weight on the tractor to increase steering stability.**
- **When traveling on a road, attach the SMV emblem to the tractor to identify it as a low speed vehicle.**
  Observe all traffic regulations.

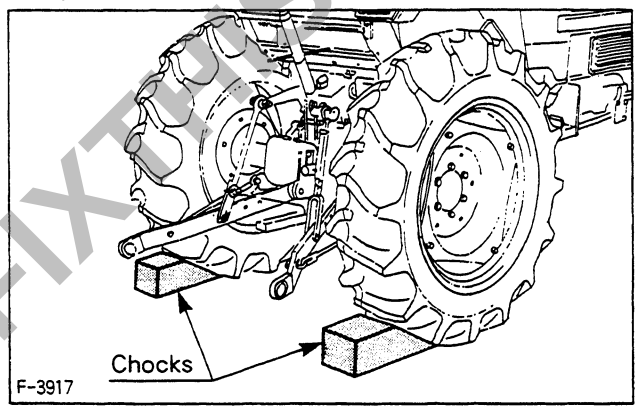


■ Stopping

(1) Slow the engine down.
(2) Step on the clutch and brake pedal.
(3) After the tractor has stopped, disengage the PTO, lower the implement, shift the transmission to neutral, release the clutch pedal, pull the parking rod to apply the parking brake.

■ Parking

(1) When parking, be sure to set the parking brake.
(2) Before getting off the tractor, disengage the PTO, lower all implements, place all control levers in their neutral positions, set the parking brake, stop the engine and remove the key.



(3) If it is necessary to park on an incline, be sure to chock the wheels to prevent accidental rolling of the machine.

CAUTION
To avoid personal injury:
- **Always set the parking brake and stop the engine before leaving the tractor seat.**

■ Directions for Use of Power Steering

(1) Power steering is activated only while the engine is running. Slow engine speeds make the steering wheel a little heavy to handle. While the engine is stopped, the tractor functions in the same manner as ones without power steering.
(2) When the steering wheel is turned all the way to the stop, the relief valve is activated. Do not hold the steering wheel in this position for a long period of time.
(3) Avoid turning the steering wheel while the tractor is stopped, and/or with slow engine speeds, or tires and rims may wear out sooner.
(4) The power steering mechanism makes the steering wheel very easy to handle. Be careful when driving on a road at high speeds.

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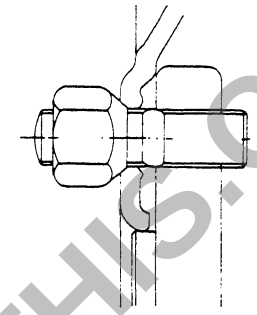
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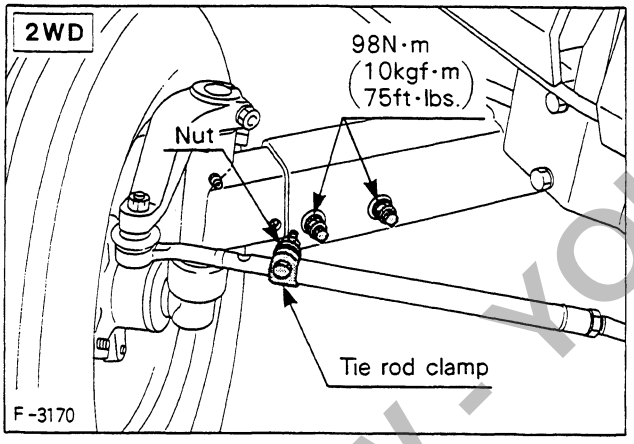
8. WHEELS, TIRES AND BALLAST

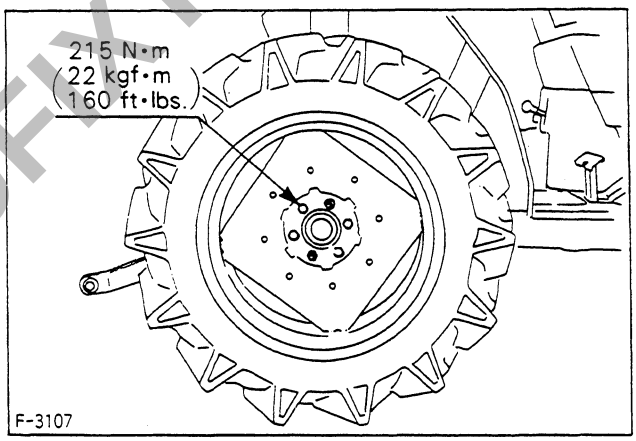
CAUTION
To avoid personal injury:
Never operate tractor with a loose rim, wheel, or axle.
- **Any time bolts and nuts are loosened, re-tighten to specified torque.**
- **Check all bolts and nuts frequently and keep them tight.**

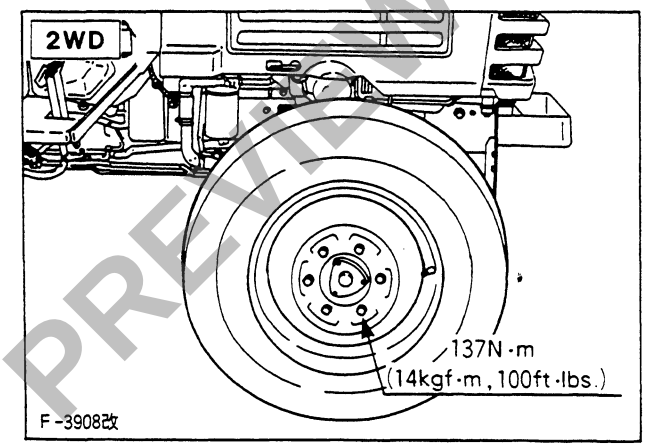
IMPORTANT:
- Follow the same checking procedure when tractor is first used.

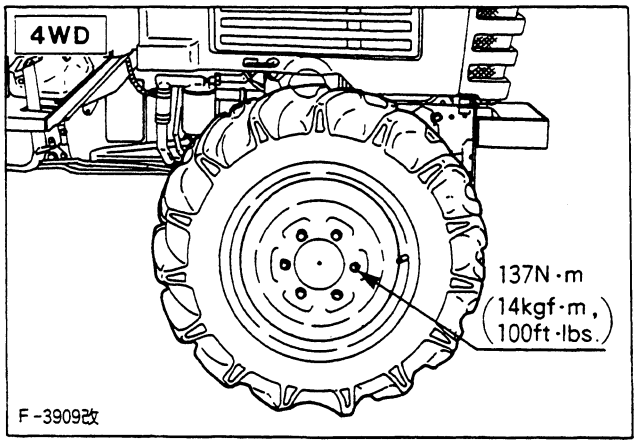
Note:
- Wheels with beveled or tapered holes: Use the tapered side of lug nut.











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